

of the Gannets on the Stack in the past, she is of opinion that it has been largely due to the vast quantities of other sea-fowl scattered amongst them. There are thousands of Guillemots and Kittiwake Gulls on the Stack, and, taken altogether, they probably confused Captain McDonald's eye at a distance.

The Duchess had been asked to obtain, if possible, whilst on her cruise, some confirmation of the nesting of Gannets on North Rona. This was reported to Mr. John Swinburne to have been the case when he was there in 1883 (*see Proc. R. Phys. Soc. Edinburgh*, viii. p. 65). The Duchess, however, could learn nothing authentic about it, but she does not consider the Rona cliffs adapted to Gannets, and the report may have originated in error. Yet their propinquity to Sulisgeir, where there are supposed to be 8000 Gannets (*see 'The Gannet,' p. 325*), makes it probable that Gannets have occasionally bred there.

XL.—*Notices of recent Ornithological Publications.*

Aiken and Warren on the Birds of Colorado.

[The Birds of El Paso County, Colorado. By Charles E. H. Aiken and Edward R. Warren. Colorado College Publ. Sci. Ser. vol. xii. 1914, pp. 455-603, 24 plates.]

The pleasant town of Colorado Springs, lying at the eastern base of the Rocky Mountains and overshadowed by Pike's Peak, which reaches an elevation of over 14,000 feet, is the chief town of El Paso County in the State of Colorado. Mr. Aiken has resided in the town more or less continuously since it was founded in 1871, and all his leisure time has been devoted to observing and collecting the birds of this region. The junior author, Mr. Warren, came to Colorado Springs in 1881, and has interested himself in both Mammals and Birds, and in 1910 published an excellent manual of the Mammals of the State.

The joint authors are therefore in every way fully qualified for their task in preparing a list of the birds of El Paso

County. About 275 species are enumerated, each with notes on the status, habits, and history. Twenty-four plates, prepared from photographs by Mr. Warren, illustrate the text, which is prefaced by an introduction containing an account of the topography, life-zones, climate, ornithological history, and bibliography of the county.

Bangs and Phillips on Yunnan Birds.

[Notes on a Collection of Birds from Yunnan. By Outram Bangs and John C. Phillips. Bull. Mus. Comp. Zool. Harvard Coll. vol. lviii. 1914, pp. 267-302.]

This paper contains a list of a large collection of over 1300 bird-skins made by a Japanese collector in southern Yunnan and acquired by the Museum of Comparative Zoölogy at Cambridge, Mass. The collection was formed almost entirely in the neighbourhood of Mengtze, a considerable town now nearly reached by the railway. It stands at an elevation of almost 4500 ft., and is bordered by mountains which run up to a height of about 8000 ft., among which it appears most of the collecting was done.

The last paper on the birds of Yunnan is that published by Mr. Collingwood Ingram in 1912 (Nov. Zool. vol. xix. pp. 269-310), and to the 352 forms there catalogued Messrs. Bangs and Phillips here add seventy-eight, thirteen of which are, in their opinion, novelties. They notice that this region appears to be a favourite winter resort of many birds which breed further north, since among the collection there are several series of a species made up of two distinct subspecies—one, sometimes both, of which, judging by the dates on the labels, do not breed in the neighbourhood of Mengtze.

The new forms described are as follows:—*Arboricola rufogularis ewoa*, *Bambusicola oleagina*, *Niltava sundara denotata*, *Cryptolopha trivirgatus eiuucidus*, *Pericrocotus brevirostris ethologus*, *P. b. flavillaceus* (from the north-west Himalaya of India), *Alcurus striatus paulus*, *Spizixus canifrons ingrami*, *Ianthocincla lustrabilia*, *Pomatorhinus maclellandi odicus*, *P. ruficollis reconditus*, *Actinodura*

ramsayi yunnanensis, *Enicurus guttatus bacatus*, *Ianthia practica*.

Bangs on new American Birds.

[The Geographic Races of the Scaled Quail. By Outram Bangs. Proc. New Engl. Zoöl. Club, iv. 1914, pp. 99-100.

A new Magpie-Jay from Western Costa Rica. Id. *ibid.* pp. 101-102.]

Mr. Bangs recognizes three, instead of two, races of the Scaled Partridge or Quail. These are *Callipepla squamata pallida* Brewster, from Arizona and New Mexico, and *C. s. castanogastris* Brewster, from the lower part of the valley of the Rio Grande in Texas and the neighbouring parts of Mexico, while the type-form *C. s. squamata* (Vig.) is restricted to the Valley of Mexico.

In the second note, Mr. Bangs separates the Magpie-Jay of Costa Rica from that of southern Mexico and Guatemala under the new subspecific title of *Calocitta formosa pompata*.

Beebe on the Pheasants and on other Birds.

[Notes on the Ontogeny of the White Ibis. By C. William Beebe.

Specialization of Tail-down in Ducks. By C. William Beebe and L. S. Crandall.

Effect of Postponed Moults in certain Passerine Birds. By C. William Beebe.

Preliminary Pheasant Studies. By C. William Beebe. *Zoologica*, New York, vol. i. 1914, nos. 12-15, pp. 241-285.]

As is well known to most of our readers, Mr. Beebe, who is the Curator of Birds at the Zoological Park in New York, is engaged in the preparation of comprehensive work on the Pheasant family, and now, under the last of the titles in the list given above, he presents to us some of his preliminary studies. It has always been a difficult matter to draw up a satisfactory classification of the Pheasant family, but Mr. Beebe has discovered a character which he believes to be a fundamental one and by which he is confident he can divide this large family into four groups. This character is the method of the moult of the tail.

In *Perdix* and other genera (such as *Caccabis*, *Francolinus*,

and *Coturnix*), as well as in *Ithaginis* and *Tragopan*, the moult of the tail begins with the central rectrices and proceeds regularly outward. In *Phasianus* and the allied genera, including *Gallus*, the moult commences with the outer pair of tail-feathers and proceeds inwards, the central pair being the last to be shed. A third subfamily, termed by Mr. Beebe Argusianinæ, includes the genera *Argusianus*, *Polyplectron*, *Chalcurus*, and *Rheinordius*; in these the moult begins with the third pair from the centre and proceeds outwards and inwards, the last to fall being the outer pair. Finally, the Peacocks form a fourth group, in which the fifth pair fall first and the first last.

The sequence can be best shown as follows, the numbers referring to the pairs of feathers numbered from the centre outwards :—

Perdicinæ	1 . 2 . 3 . 4 . 5 . 6
Phasianinæ.....	6 . 5 . 4 . 3 . 2 . 1.
Argusianinæ ...	3 . 4 . 2 . 5 . 1 . 6
Pavoninæ	5 . 4 . 3 . 2 . 6 . 1

The rest of the article on the Pheasants deals with the plumage-sequence of *Ithaginis*, *Tragopan*, *Lobiophasis*, and with a review of distinguishable forms of some of the other genera, such as *Lophophorus* and *Crossoptilon*; and in these matters Mr. Beebe adopts a decidedly conservative policy, only recognizing those subspecies which can be clearly discriminated, and suggesting that in many cases anomalous and puzzling forms can be explained by hybridization.

Of the three other papers on the list, the first deals with the development of the plumage and the changes in the colour and shape of the bill and legs of the White Ibis (*Guara alba*) from the time of hatching onwards, and is the result of observations made on these birds in the aviaries of the Zoological Park. It is illustrated by a coloured plate.

In another paper the growth of the rectrices in the Wood-Duck is shown to start as early as the tenth day after hatching, while none of the contour-feathers begin to

appear till at least four days later. The down-feathers, which precede the rectrices, were found to be remarkably long and stiff, and are borne on the tip of the latter for a considerable period.

The third paper relates a curious experiment made by Mr. Beebe on the Scarlet Tanager (*Piranga erythromelas*) and the Bobolink (*Dolichonyx oryzivorus*); both of these birds have a brilliant summer dress, which is exchanged in autumn for a duller and more sombre garb resembling that of the female.

Taking some of these birds in their full summer dress and confining them in rather small cages, Mr. Beebe gradually cut off the supply of light and increased the amount of food. By this means the birds became very fat, and, although they appeared to be in perfect condition in every respect, no signs of moulting took place, and the birds retained their bright breeding plumage through the whole winter. In the early spring the Tanagers and Bobolinks were brought back under normal conditions and into seasonal activities, with the result that a moult took place, and the succeeding plumage was not the winter one but a new nuptial plumage, so that in this case the winter plumage was entirely suppressed.

Experiments such as these open out large fields of speculation, and will no doubt in time help to solve some of the riddles of variation and mutation.

Chapman on new Birds from Ecuador.

[Descriptions of new Birds from Ecuador. By Frank M. Chapman. Bull. Amer. Mus. Nat. Hist. vol. xxxiii. 1914, pp. 317-322.]

The American Museum is now extending its ornithological survey of South America into Ecuador, where for some time past Mr. William B. Richardson has been collecting in certain selected localities. Pending a detailed report on the very large collections sent to New York, Mr. Chapman has now published descriptions of new species and subspecies of the following genera:—*Leptoptila*, *Speotyto*, *Pyrrhura*, *Tityra*, and *Pitylus*.

E. C. Chubb on South African Birds' Eggs.

[A Descriptive List of the Millar Collection of South African Birds' Eggs. By E. C. Chubb. Annals Durban Museum, i. 1914, pp. 29-106, pl. vii.]

The energetic Curator of the Durban Museum has been able to start a new journal, under the title given above, to contain memoirs on the zoological and other material contained in the Museum; and his contribution to the first issued part is a catalogue of the very valuable collection of eggs made by our late Colonial Member, Mr. A. D. Millar, which has been acquired for the Museum.

The collection contains some 2500 eggs, representing 308 species, a number of which have not hitherto been described, though many were made use of by Messrs. Stark and Sclater in their work on South African Birds.

The majority of the eggs were collected by Mr. Millar himself, mostly in the neighbourhood of Durban. In many cases, there are added to the descriptions field-notes from Millar's diaries.

A coloured plate of some of the hitherto unfigured eggs, prepared by Mr. Grönwold, adds to the attractiveness of this very useful piece of work, on the completion of which we must offer our congratulations to Mr. Chubb.

Flower on the Giza Zoological Gardens.

[Report on the Zoological Service for the Year 1913, in which is included the 15th Annual Report on the Giza Zoological Gardens. By Capt. S. S. Flower, Director. Pp. 1-48, pls. i-viii. Cairo (Govt. Press), 1914. 8vo.]

Capt. Flower's Annual Report on the Zoological Gardens near Cairo contains the usual statistics. The year 1913 proves to have been a record one, both as regards the number of visitors, 258,623, and in the number of animals in the menagerie, which amounted to 1630, representing 378 distinct forms.

Among interesting birds acquired during the year were a pair of Abu Gumba, or Ground-Hornbills (*Bucorvus abyssinicus*), and 12 Senegal Bustards (*Otis senegalensis*), all

from Kordofan, and a Slender-billed Gull (*Larus gelastes*) from Lake Menzaleh.

A new Museum of Natural History is being constructed in the Gardens, and the zoological collections formerly preserved in the Egyptian Government School of Medicine at Cairo have been handed over to the care of the Zoological Service. Doubtless, Mr. Nicoll and Mr. Bonhote will be able to get together and arrange for exhibition and study a good representative collection of Egyptian birds for this new institution.

Under the fostering care of the staff of the Gardens, much progress has been made in the protection of birds and the institution of shooting licenses; and the number of Egrets, over a thousand of which were hatched and reared in captivity and liberated in 1913, have increased and multiplied all over the country—a most satisfactory piece of work.

Foster on the Birds of Hertfordshire.

[The Birds of North Hertfordshire, being Notes on the Birds of Hitchin and surrounding District of North Herts. With Tables of Dates of Arrival of Summer Migrants since the Year 1908. By Arthur H. Foster, M.B.O.U. etc. Pp. 1-32, 1 pl. Hitchin (Paternoster and Hales), 1914. 8vo.]

Mr. Foster has published his list of 192 species of birds which are known to have occurred in north Hertfordshire, in separate pamphlet form, prefaced by a photograph of a Stone-Curlew approaching its nest, from the camera of Mr. Bickerton, and a few words of introduction by the same gentleman, who has made a speciality of the birds of this county.

Among the rarer species occurring is the Stone-Curlew already mentioned, which still breeds regularly in one locality in the district. Other birds more numerous here than in any other part of the same county are the Red-backed Shrike, the Dotterel, the Hooded Crow, and the Twite.

Gurney's Bird-report for Norfolk.

[Ornithological Report for Norfolk (1913). By J. H. Gurney, F.Z.S. Zoologist, 1914, pp. 161-182, pl. ii.]

Mr. Gurney's report of all matters of ornithological interest

in Norfolk has now been issued for a good many years, and always contains many observations and reflections of interest. The frontispiece is a reproduction of a clever photograph of a Sparrow-Hawk which has just received the contents of the keeper's gun, and is in the act of falling through the air; and it is still a matter for regret that so many of our rarer and more interesting birds are sacrificed to the keeper's ignorance as to which birds really do harm to his game and which do not.

The spring migration was again lamentably deficient in the smaller Warblers—Willow-Warblers, Whitethroats, Nightingales, and Blackcaps,—and it is suggested that increasing numbers of these fall victims to the “roccoli” and other methods of destruction so common in Italy. The Spoonbills, however, still come to Breydon Broad in small numbers, and were seen on twenty-six days out of one hundred and six between May and August by the watcher Mr. G. Jary.

The autumn migration commences as early as August on the Norfolk coast, and can be roughly divided into two brigades of birds, the first consisting of Wheatears, Redstarts, Warblers, Flycatchers, and Sparrow-Hawks, reaching its maximum in September; while in October and November come hosts of Grey Crows, Rooks, Jackdaws, Skylarks, and Thrushes.

Among the rarities recorded during the year were:—Ortolan Buntings, Yellow-breasted Buntings, Roseate Terns, a Glossy Ibis, and an inrush of Waxwings in November and December.

At Blakeney Point, where there is a well-protected “turnery,” the results of the breeding season were rather unsatisfactory, as there was a great mortality among the young Lesser Terns and more than three-fourths of them perished, probably owing to a deficiency in the supply of Whitebait, which appears to form the normal food of the nestlings.

Neumann on African Owls and Flycatchers.

[Ueber einige afrikanische Uhus. Von Oscar Neumann. Journ. f. Ornith. 1914, pp. 35-38.

Vermeintliche Unica des Philadelphia und des Wiener Museums, und ihre systematische Stellung. Id. ibid. pp. 156-157.]

In the first of these short notes Mr. Oscar Neumann discusses the position of an Eagle-Owl, *Bubo ascalaphus trothæ*, recently described by Dr. Reichenow from German South-West Africa. This, from an examination of the type, is found to have nothing to do with *Bubo bubo* or *Bubo b. ascalaphus*, but is close to, if not identical with, the South African form usually known as *B. maculosus*. A further point discussed is the nomenclature of this latter species. By Reichenow it is called *Bubo nisuella* (Daud.), a name founded on Levaillant's "Choucouhou"; but Levaillant's figure cannot be identified with any certainty, and has considerable resemblance to the bird generally known as *Otus capensis*. The next available name by which this Owl has been generally known is *Bubo maculosus* (Vieill.); in this case, again, our author points out that the description is quite inapplicable and that the earliest certain and undoubted description is that of Temminck (Pl. Col. ii. 1821, tab. 50) under the name of *Strix africana*. He therefore suggests that the Cape Owl, usually known as *Bubo maculatus* (Vieill.) and sometimes as *B. nisuella* (Daud.), should in future be referred to as *Bubo africanus* (Temm.).

The second note deals with two of Cassin's types, collected by Du Chaillu in West Africa, and described as *Parisoma olivascens* (afterwards made by Reichenow the type of his genus *Apatema*) and *Hypodes cinerea* (first placed by Cassin in the genus *Eopsaltria*).

The first of these our author would identify with a Flycatcher from Fantee in the British Museum, labelled "*Butalis grisola*," and also with *Bradornis sylvia* Rehw. from Kamerun. This species should be referred to the genus *Alseonax*, and the bird should be known in future as *A. olivascens* (Cass.).

With regard to *Hypodes cinerea*, Mr. Neumann believes that it is identical with Hartlaub's *Alseonax lugens* and with *Muscicapa cassini* Heine (nec Sharpe, Cat. Bds. iv. p. 156, and Reichenow, Vög. Afr. ii. p. 453), and it should also be referred to *Alseonax* and be known as *A. cinereus* (Cass.).

Finally, a third unique type now in the Vienna Museum has recently been examined by Mr. Neumann. This is *Eremomela hypoxantha* Pelz., and turns out to be no *Eremomela* at all, but the female of a Sun-bird, *Hedydipna platura* (Vieill.).

Pearl on the Egg-laying Capabilities of Poultry.

[Inheritance in Blood-lines in Breeding Animals for Performance, with Special Reference to the 200-egg Hen. By Dr. Raymond Pearl. Ann. Rep. Amer. Breeders' Assoc. vi. 1911, pp. 317-326.

The Secretary Activity of the Oviduct of the Domestic Fowl. By Raymond Pearl. Proc. Soc. Promotion Agric. Sci. 1911, pp. 29-34.

The Mode of Inheritance of Fecundity in the Domestic Fowl. By Raymond Pearl. Journ. Experimental Zool. xiii. 1912, pp. 153-268.

Fat-deposition in the Testis of the Domestic Fowl. By Raymond Pearl and Alice M. Boring. Science, xxxvi. 1912, pp. 833-835.]

Dr. Raymond Pearl, who is on the staff of the Agricultural Experiment Station of the State of Maine, U.S.A., has sent us a number of his papers, all dealing with various aspects of the fertility of the Domestic Fowl. In the first and third of those mentioned, he discusses the question of the inheritance of the egg-laying quality, which he believes is not so simple as it seems. From his numerous experiments, chiefly with Plymouth Rock and Indian Game varieties, he finds that it by no means follows that the record of the fecundity of a hen taken by itself gives a reliable indication of the probable egg-production of the daughters. He finds, however, that high fecundity may be inherited by daughters from their sire, independently of the dam, while a low degree of fertility may be inherited by daughters from either sire or dam or both.

These facts seem to be supported as such by a mass of evidence derived from experiments, and these the author

proceeds to explain on a Mendelian hypothesis, for the details of which we must refer the reader to the memoir itself.

The second paper in the list gives a detailed account of the passage of the hen's egg down the oviduct, and of the exact portions of the oviduct where the egg acquires its albumen of two varieties, its shell-membrane and its shell, and of the time taken to acquire these various coverings.

The last paper deals with the origin of the fat found deposited among the interstitial cells of the testis and ovary of the fowl, and it is concluded that this is a part of the metabolized fat from the food which is carried to the testis and there directly deposited.

Ridgway's Birds of North and Middle America.

[The Birds of North and Middle America: a Descriptive Catalogue, etc. By Robert Ridgway. Part vi. (of Bulletin no. 50 of the United States National Museum). Pp. xx+882; 36 pls. Washington (Govt. Printing Office), 1914. 8vo.]

It is just two and a half years since Mr. Ridgway completed the fifth part of his monumental work on the birds of North America, and we have now received a copy of Part VI., which was issued from the press on the 8th of April last. It contains descriptions of the Picarian Birds, including the Woodpeckers, Barbets, Toucans, Puff-birds, and Jacamars; of the Anisodactylæ, including the Kingfishers, Todies, and Motmots; of the Nycticoraciæ, including the Goatsuckers; and of the Owls. The Cuckoos and Parrots have had to be excluded, and will appear in the next Part. As it is, the present volume consists of 882 pages.

For those who are not acquainted with Mr. Ridgway's work, it may be added that full descriptions, not only of each subspecies and species, but of the higher groups (genera, families, etc.), are given, and that all the species occurring in North America, from the Arctic to the Isthmus of Panama, as well as those of the West India Islands and Galapagos, are included. A series of 36 plates of the structural characters of each genus is a most useful addition and a great assistance to the working ornithologist.

Anyone who has worked at the birds of America—and, alas! the number who are now so engaged among our British ornithologists is all too few—well knows how indispensable Mr. Ridgway's volumes are, and will welcome the appearance of the present volume, and will join with us in hoping that he may be spared to complete the work.

Salvadori on a Forgotten Paper by Bonaparte.

[Intorno ad un lavoro del Principe Carlo Luciano Bonaparte. Nota del Socio T. Salvadori. Atti Accad. Sci. Torino, vol. xlix. 1914, pp. 447-451.]

In this short note Salvadori draws attention to a paper by Bonaparte, which contains a number of new generic names, and which appears to have escaped, or partially escaped, the notice of bibliographers. The title of the paper is "Parallelismo fra le tribu dei Cantori Fissirostri e quelle dei Volucri hianti et dei Nothurni orvero insidenti," and it was published in the 'Rivista Contemporanea,' vol. ix., February 1857, pp. 209-217.

The names of the new genera introduced are *Hemicecrops*, *Pristoptera*, and *Tapera* for certain species of Swallows; of these, the last-mentioned was previously used by Thunberg and is therefore invalid. For members of the family Cypselidæ, *Achantylops* and *Pallenia* are proposed; the first has no species assigned to it, and can therefore not be made use of under any circumstances. Finally, *Ramphaoratus* and *Capripeda* are suggested for certain members of the family Caprimulgidæ.

Stresemann on the Edible-nest-producing Swift.

[Was ist *Collocalia fuciphaga* (Thunb.)? Von Erwin Stresemann. Verhandl. Ornith. Ges. Bayern, xii. 1914, pp. 1-12.]

Mr. Stresemann has discovered, with the aid of Mr. Bartels, in Java, that there are two distinct but closely allied species of *Collocalia* existing side by side in that island. He compares this state of things with *Parus palustris* and *P. atricapillus*, *Certhia familiaris* and *C. brachydactyla*, which, though quite distinct species, are difficult to distinguish,

and co-exist side by side in Europe. Such cases have been termed by Kleinschmidt "Affenformen."

Of the two species, he identifies the larger form with an unfeathered tarsus with Thunberg's description of "*Hirundo fuciphaga*," while the smaller species he believes to be identical with the bird described by Latham in his 'History of Birds,' Suppl. ii. p. 257, and which was subsequently named by Lesson *Salangana vestita*.

In the latter part of his paper he gives diagnoses of several new subspecies of the larger Javanese type-form, i. e., *Collocalia fuciphaga micans* from Sumba, Savu, and Timor, *C. f. hirundinacea* from the Snow Mountains of Dutch New Guinea, and *C. f. moluccarum* from the Kei and South-east Islands.

Schaub on the Pterylography of the Kagu.

[Das Gefieder von *Rhinocetus jubatus* und seine Postembryonale Entwicklung. Von Samuel Schaub. N. Denkschr. Schweiz. Nat. Ges. Bd. 14, Abh. 2, 1914, pp. 65-118, 1 Taf., 12 text-fig.]

The Kagu of New Caledonia has for a long time occupied an anomalous position in our classificatory system, and whether Mr. Schaub has been able to throw any further light on its exact relationships seems somewhat doubtful; but in the present number he has criticized and added to the accounts already published by Murie and Burckhardt in regard to the pterylography of this bird.

He regards the "powder-down" patches, which form so remarkable a feature of the feather-covering of the Kagu, not as a primitive, but as a highly specialized set of organs.

The second portion of the paper deals with the juvenal plumage and its development into that of the adult.

Snethlage on the Birds of the Amazon Valley.

[Catalogo das Aves Amazonicas contendo todas as especies descritas e mencionadas até 1913. Pela Dr. Emilia Snethlage. Bol. Museu Goeldi, viii. 1914, pp. 1-532, 6 pls. & 1 map.]

The Museum at Para, in Brazil, was formerly under the Directorship of our Honorary Member, Dr. Emil A. Goeldi. Since he retired and has gone to live in Switzerland, the

Museum has been renamed after its renowned founder, and his work on Brazilian birds has been undertaken by a learned lady, Dr. Emilia Snethlage, who has already made considerable additions to our knowledge of the Avifauna of the Amazons region.

The present stout volume contains a review of all the species of birds hitherto recorded from the basin of the Amazon, extending westwards from the sea to the Andes and northwards to the water-parting of the Amazons and Orinoco.

A short description of each species is given, as well as analytical keys to the orders, genera, and species; also the exact localities of the examples in the extensive collections of the Goeldi Museum, and as far as possible the common Portuguese name.

In the introduction will be found a short list of the literature of the subject, some account of the history of ornithological exploration in northern Brazil, and notes on the limits of the region treated of. This last is well illustrated by a map. Five other plates, to explain the structural characters of birds, will assist the amateur to identify the generic position of any bird, and the whole work is designed not only for the collectors in the field in Brazil, but also for the workers in the museums of Europe and elsewhere. Unfortunately, it is written in the Portuguese language, which is not very well known; but this, we suppose, was inevitable in a work published in Brazil.

We must congratulate Miss Snethlage on having brought to a conclusion a most laborious and conscientious piece of work, and hope that it will stimulate the activities of Brazilian ornithologists to make better known the extraordinarily rich and varied avifauna of a land rendered classical by the early work of our compatriots, Bates and Wallace.

Surface on the Structure of the Hen's Oviduct.

[The Histology of the Oviduct of the Domestic Hen. By Frank M. Surface. Ann. Rep. Maine Agricult. Exper. Station for 1912, pp. 395-430, 4 pls. Orono, Maine, U.S.A.]

This paper contains a careful study of the intimate structure

of the oviduct of the hen, which is of considerable importance, since at least half the mass of the normal hen's egg is elaborated by the walls of this organ during its passage along it, namely, the albumen, the shell-membrane, and the shell itself.

Mr. Surface claims that he is the first to point out the presence of certain glandular structures in the funnel region at the commencement of the oviduct, where the ovum is grasped and enters the oviduct after ovulation. It is from these glands, he believes, that the thin layer of more dense albumen, known as the chalaziferous layer, is derived.

The functions of the other portions of the oviduct have already been pointed out, but in the present paper the whole of the minute structure is described, and the parts played by each region of the oviduct, from the funnel to the vagina, in the formation of the various portions of the egg are clearly pointed out.

Tschusi on the Ornithological Literature of Styria.

[Zoologische Literatur der Steiermark. Ornithologische Literatur. Von Viktor Ritter v. Tschusi zu Schmidhoffen. 1912, 1913. Mitt. Nat. Ver. Steiermark, vol. 50. 1913, pp. 136-145.]

The title of this paper fully explains its contents. It contains a list of all ornithological papers relating to Styria, in Austria, published during the years 1912 and 1913.

British Birds.

[British Birds, edited by H. F. Witherby, F.Z.S., M.B.O.U., assisted by Rev. F. C. R. Jourdain, M.A., M.B.O.U., and Norman F. Ticehurst, M.A., F.R.C.S., M.B.O.U. Vol. vii. nos. 1-12. June 1913-May 1914.]

The contents of the seventh volume of 'British Birds' appear to be quite as varied and interesting as those of its predecessors.

Among the more interesting articles is one from Mr. G. B. Humphreys, who has discovered a breeding-place of the Roseate Tern in Ireland, the exact locality of which he wisely refuses to divulge. Miss Best and Miss Haviland contribute some wonderful photographs of the Grey Lag

Goose, the Eider, and the Common Gull, all in their nesting-haunts or on their nests, and they believe that—anyhow, in the case of the first-named—the sense of smell is so well developed that they can only be satisfactorily photographed when the wind is blowing from the bird towards the camera and hiding tent. Some equally beautiful photographs of the Red-throated Diver have been sent by Miss E. L. Turner. Mr. Witherby's article on the plumages of the Rook have already been noticed, and Messrs. Jourdain and Borrer give us an interesting account of "Erythrism in Eggs." The "Bird-ringing" scheme attracts more and more helpers every year, and the results gradually obtained, when sifted out and tabulated, cannot fail to help to solve many of the obscurer problems of bird-migration.

The Emu.

[The Emu. Official Organ of the Royal Australasian Ornithologists' Union. Vol. xiii. pts. 1-4. July 1913-April 1914.]

The thirteenth volume of 'The Emu' contains a large number of contributions of a varied nature in regard to Australian ornithology. The veteran American, Dr. R. W. Shufeldt, whose favourite study is the osteology of birds, contributes an account of the skeleton of the Honey-eater (*Acanthochæra carunculata*), illustrated with photographs taken by himself.

Among the topographical papers are those of Capt. S. A. White on the Gawler Ranges of South Australia; of Messrs. Orton and Sandland, on the birds of the neighbourhood of Moore, in West Australia; of Mr. E. D. Barnard, on the Torilla Plains of Queensland; and of Mr. H. G. Barnard, on the birds of the Brunnette Downs in Northern Territory.

Mr. C. F. Cole sends a description of a new Scrub-Wren, *Sericornis insularis*, from Forsyth Island, in Bass Strait, and Dr. W. Macgillivray finds it necessary to propose a new generic name for a parrot related to *Cyclopsittacus*, collected at Cape York, by Mr. McLennan. He proposes to name the bird *Pseudopsittacus maclennani*, gen. et sp. n.

The Annual Meeting of the R. A. O. U. was held at

Adelaide in November 1913, the President being Mr. R. Hall, and was most successful. It was followed by an interesting excursion up the River Murray in a special steamer chartered by Capt. White, which lasted over a week. A full report of this and of all the birds noticed during the excursion will be found in the January number.

List of other Ornithological Publications received.

- GOELDI, E. A. Fort mit der Reiherfeder vom Damenhut! 'Bund,' June, 1914. Die Tierwelt der Schweiz in der Gegenwart und in der Vergangenheit. Bd. I. Wirbeltiere. Bern, 1914.
- MATHEWS, G. M. The Birds of Australia. (Vol. iii. pt. 6, 1914.)
- NORTH, A. J. Nests and Eggs of Birds found Breeding in Australia and Tasmania. (Vol. iv. pt. 4. Sydney, 1914.)
- SWARTH, H. S. Distributional List of the Birds of Arizona. (Cooper Orn. Club, California, 1914.)
- WATT, H. B. Scottish Heronries. (Scott. Nat., May, 1914.)
- Australian Zoologist. (Vol. i. pt. 1. Sydney, 1914.)
- Avicultural Magazine. (3rd Series, Vol. v. Nos. 9-11, 1914.)
- Bird Lore. (Vol. xvi. Nos. 3, 4, 1914.)
- British Birds. (Vol. viii. Nos. 2, 4, 1914.)
- Bulletin of the Royal Australasian Ornithologists' Union. (No. 4. Melbourne, 1914.)
- The Condor. (Vol. xvi. No. 4, 1914.)
- The Emu. (Vol. xiv. pt. 1, 1914.)
- The Feathered World. (25th Birthday Number. Vol. li. No. 1306. London, 1914.)
- Field Museum of Nat. Hist. Ann. Report of the Directors for 1913. (Chicago, 1914.)
- Irish Naturalist. (Vol. xxiii. Nos. 7-9, 1914.)
- Messenger Ornithologique. (No. 2. Moscow, 1914.)
- Ornithologisches Jahrbuch. (Vol. xxv. Heft. 1, 2, 1914.)
- The Scottish Naturalist. (Nos. 31-33, 1914.)
- The South Australian Ornithologist. (Vol. i. pt. 3. Adelaide, 1914.)
- Zoologischer Anzeiger. (Bd. xlv. Nr. 9-13, 1914.)